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Letter to Editor

LETTER TO EDITOR

Note the distinction between myocarditis, novel coronavirus myocarditis and COVID-19 vaccine-associated myocarditis

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Dear Editor,

We read with great interest an article in your journal about coronavirus disease (COVID-19) vaccine-associated myocarditis.[1] Therefore, the diagnosis, treatment and prevention of diseases in the special context of the pandemic are fraught with more risks and challenges. Immunologically, vaccines give us the best defense against COVID-19, but the reality is a double-edged sword. In particular, our current lack of understanding of the immunological aspects of COVID-19 vaccines has led to the continued occurrence of serious vaccine-related complications, including COVID-19 vaccine-associated myocarditis. Importantly, given its etiological characteristics, it is necessary to distinguish between the concepts associated with myocarditis.

To the best of our knowledge, angiotensin-converting enzyme 2 (ACE2) is the key factor that novel coronavirus can infect cells and further cause disease of related organs.[2] In other words, any organ expressing ACE2 is a potential target organ infected by a novel coronavirus. The abundant expression of ACE2 in cardiac myocytes is also the viral molecular mechanism of the susceptibility of the heart to novel coronavirus attack and triggering novel coronavirus myocarditis. COVID-19 vaccine-associated myocarditis is an adverse complication of vaccination. It is defined as myocarditis triggered by immunological damage to cardiac cells as a result of novel coronavirus vaccine administration. Clearly, the distinction between myocarditis, novel coronavirus myocarditis and COVID-19 vaccine-associated myocarditis can help guide the development of further clinical therapeutic strategies, as well as explore the characteristics of novel coronavirus cardiovascular system infection and immunological characteristics of novel coronavirus vaccination. After all, the clinical manifestations of myocarditis caused by these three different pathogenic factors are almost identical. In particular, differential diagnosis of clinical patients with myocarditis will be helpful to the effective prevention and control of the pandemic.

In conclusion, as the pandemic continues to spread and risks remain uncertain, it is important to correctly distinguish myocarditis, novel coronavirus myocarditis and COVID-19 vaccine-associated myocarditis. After all, in this special period, we do not want to cause missed diagnosis or misdiagnosis of the novel coronavirus-related disease.

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References

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